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SHORT COMMUNICATION

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About the enigmatic *Dichotrachelus valesiacus* Stierlin, 1878 (Coleoptera, Curculionidae, Cyclominae)

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Abstract

The status of *Dichotrachelus valesiacus* Stierlin, 1878 is revised. The holotype was examined and the following synonymy is proposed: *D. verrucosus* (Kiesenwetter, 1852) = *D. valesiacus* Stierlin, 1878 **syn. nov.**

Keywords

Coleoptera, Curculionidae, Cyclominae, *Dichotrachelus valesiacus*, *D. verrucosus*, new synonym, Switzerland, Valais

Introduction

In Switzerland, the European and North African genus *Dichotrachelus* Stierlin, 1853 is represented with nine taxa (seven species and two subspecies of *D. sulcipennis* Stierlin, 1853). Three additional species (*D. muscorum tournieri* Stierlin, 1878, *D. valesiacus* Stierlin, 1878 and *D. seminudus* Tournier, 1879) are problematic, since they are known only in type specimens. One additional species is probably new to science, unfortunately only a single specimen is known till now.

With the present contribution I focus on *Dichotrachelus valesiacus*. The species was based on material from the Valesian Alps (pass of Grand St. Bernhard), but since the time of its description, it was never found again. Therefore it was suggested that it may be restricted to a small refuge area (Osella 1970, Scherler 1995), similarly to many other *Dichotrachelus*-species, whose distribution area is often very small. However, the status of the species was not altered since the first description and in the revision of the

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genus (Osella 1970) *D. valesiacus* was treated as a valid species. The only type specimen of *D. valesiacus* known, has never been thoroughly examined. Its study indicates that *D. valesiacus* is not a valid species, but a synonym of *D. verrucosus*. In the following note the holotype of *D. valesiacus* is depicted and the new synonymy is established.

Material and methods

The male genital structures were extracted and stored in a glycerine containing glass vial, pinned under the mounted specimen. The genital structures were photographed beneath glycerine with a 4-megapixel digital camera (JVC) under a stereomicroscope. The same camera was used for depicting the habitus and tarsi. The images were modified with the program Auto-Montage (Synoptics) for best results in depth of sharpness and then reworked using Adobe Photoshop version 10.0.1 (Adobe Systems Incorporated). The body length was measured dorsally from the apex of the elytra to the front margin of the thorax. The following acronyms are used: DEI – Deutsches Entomologisches Institut, Müncheberg; NMBE – Natural History Museum, Bern.

Results and discussion

Material examined: 1 male with the following indications: "Val Entremont St. Bernhard *D. valesiacus* Stierl." (Fig. 1) From the Stierlin collection, deposited in the collection of the DEI.

Body length (c.r.e.): 2.9 mm, maximal width: 1.4 mm.

The most conspicuous traits providing evidence for the synonymy are depicted.

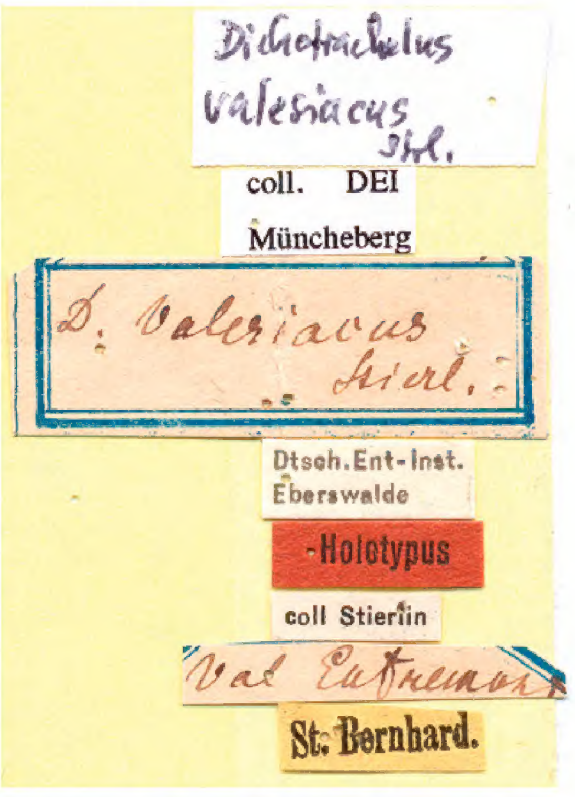

Fig. 1. Original labels of the holotype of *Dichotrachelus valesiacus* Stierlin, 1878 syn. nov. (DEI).

Habitus: Fig. 2a
Right protarsus: Fig. 3a

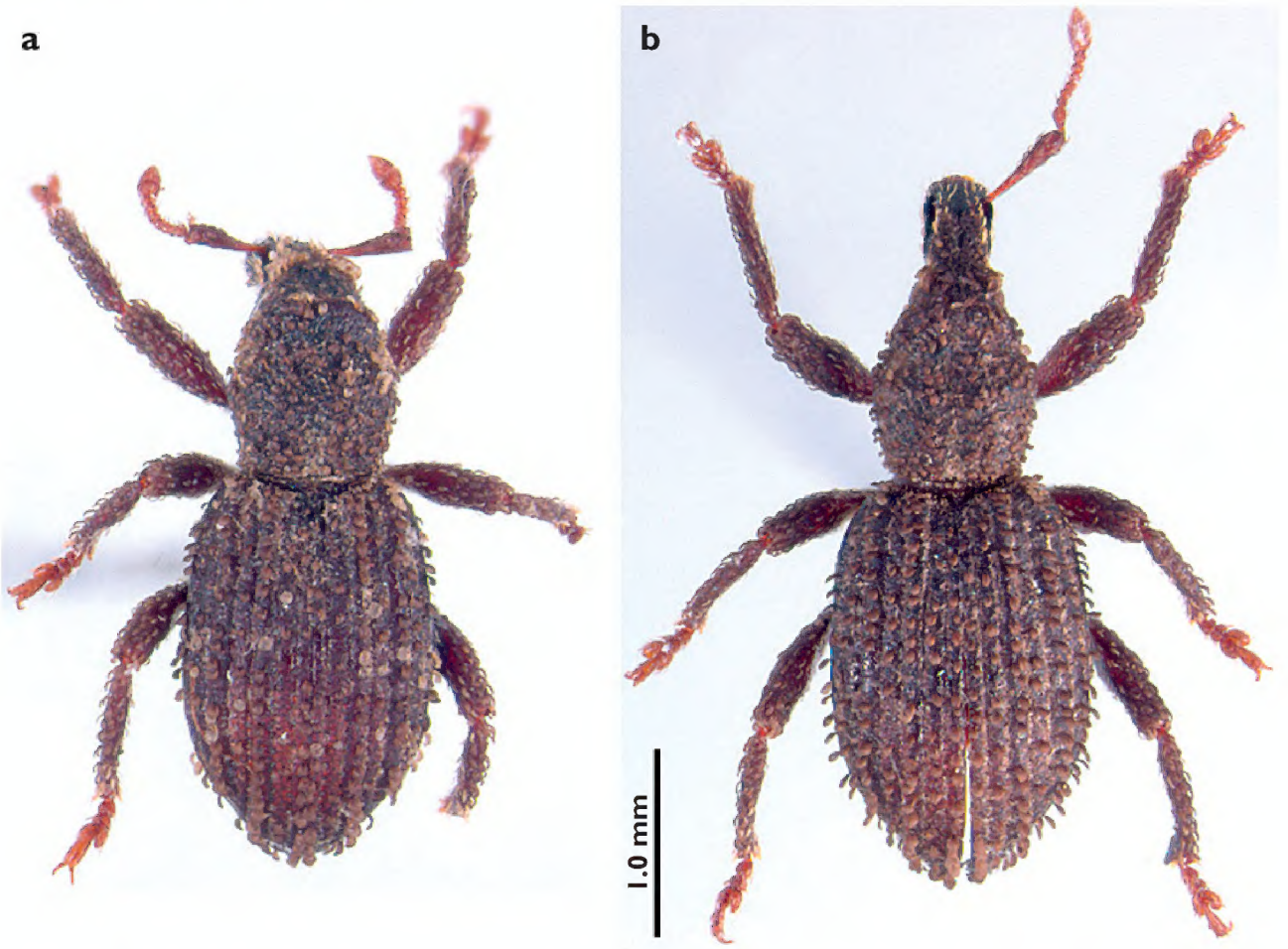

Fig. 2. Habitus of (a) *Dichotrachelus valesiacus* Stierlin, 1878 syn. nov., holotype (DEI) and (b) *D. verrucosus* (Kiesenwetter, 1852) (NMBE).

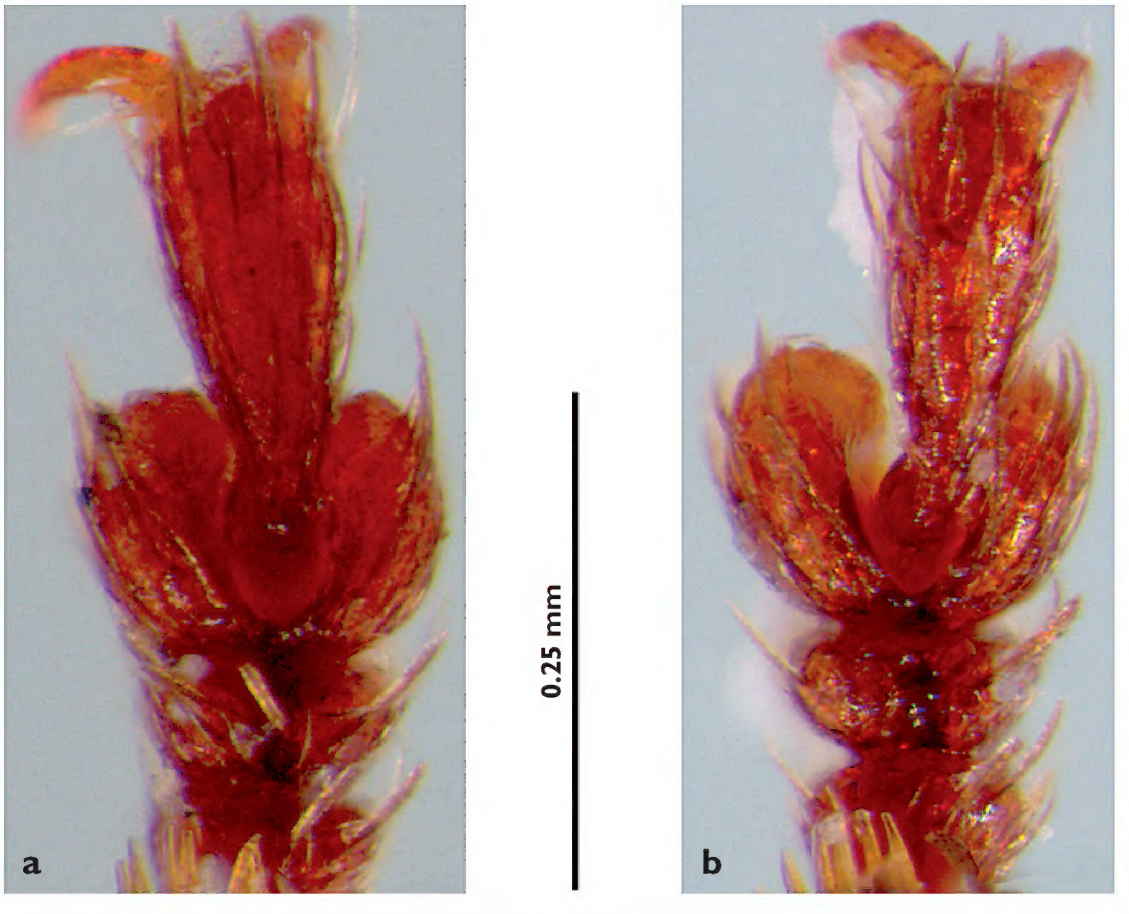

Fig. 3. Right protarsus of (a) *Dichotrachelus valesiacus* Stierlin, 1878 syn. nov., holotype (DEI) and (b) *D. verrucosus* (Kiesenwetter, 1852) (NMBE).

Aedeagus: Fig. 4a, c
Internal sac: Fig. 5a

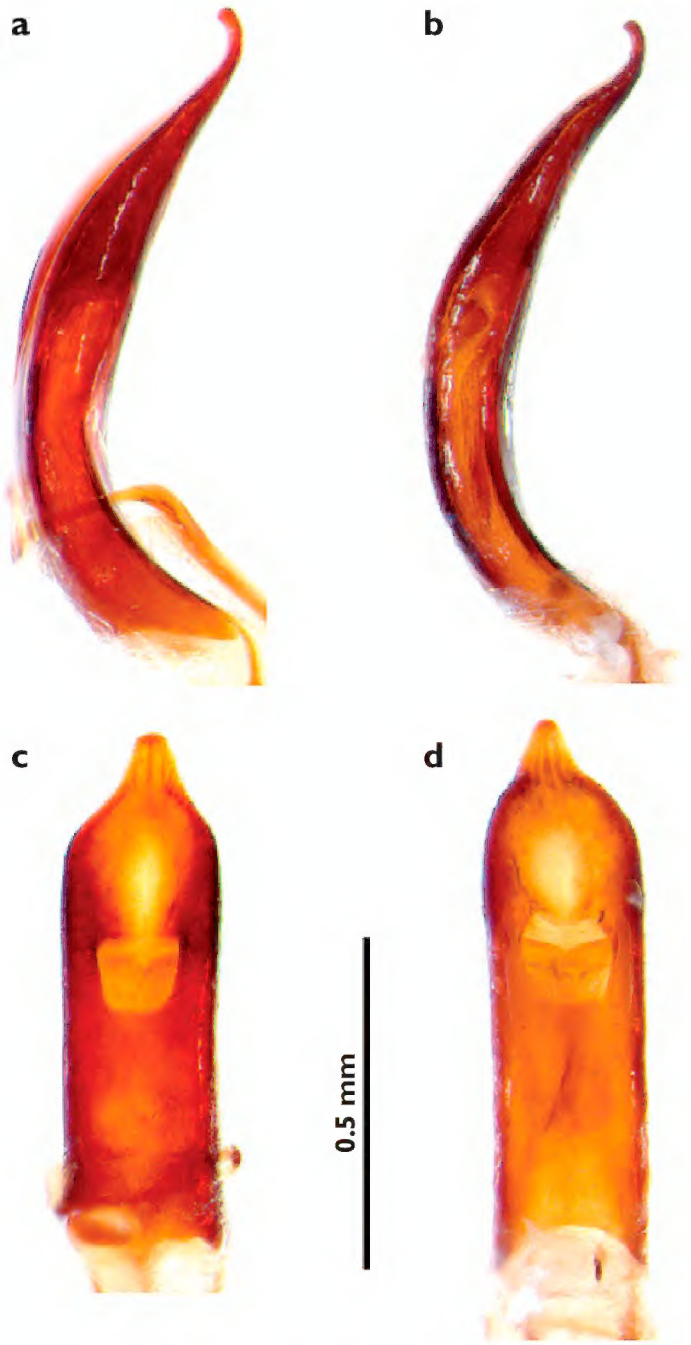

Fig. 4. Aedeagus dorsal and lateral of (a, c) *Dichotrachelus valesiacus* Stierlin, 1878 syn. nov., holotype (DEI) and (b, d) *D. verrucosus* (Kiesenwetter, 1852) (NMBE).

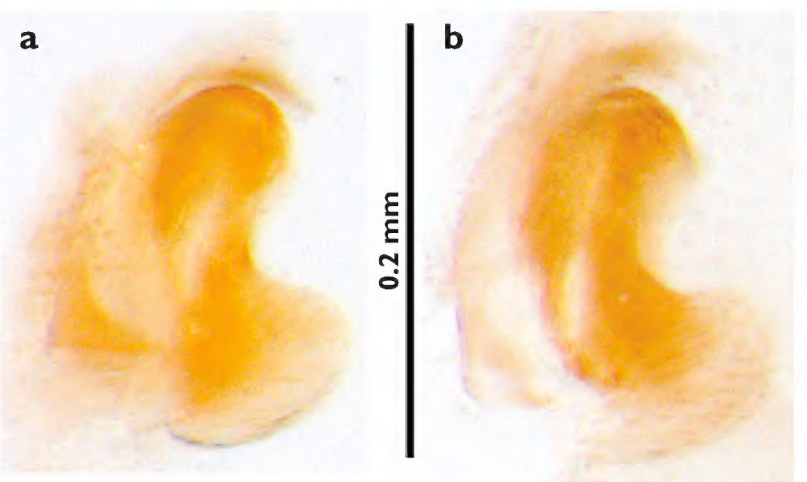

Fig. 5. Internal sac lateral of (a) *Dichotrachelus valesiacus* Stierlin, 1878 syn. nov., holotype (DEI) and (b) *D. verrucosus* (Kiesenwetter, 1852) (NMBE).

Remarks: The specimen is in a comparable good condition, the following parts of the body are missing: right hind tarsus, right middle tarsus (from the third tarsal segment on), left fore tarsus, claw segment.

The single male specimen of *D. valesiacus* is the only one present in the Stierlin collection. The specimen fits in every detail the description of Stierlin (1878: 416-417). Stierlin did not mention any typical exemplars in the first description. Only later in his "Fauna coleopterorum helvetica", he mentioned in a footnote "Bei dem einzigen Exemplare, das ich kenne..." which shows that only a single specimen was known to him (Stierlin 1898: 271). According to articles 72.4.1.1 and 73.1.2 of ICZN (2000) this specifies unambiguously the holotype by monotypy. Hence, the use of the recommendation 73F with the designation of a lectotype is not necessary. However, it should be mentioned that the only specimen of *D. valesiacus* was thought to be a female since the revision of the genus (Osella 1970). The examination of the type revealed that it is a male specimen belonging to *D. verrucosus* (Kiesenwetter, 1852), distributed in the eastern and central Pyrenean Mountains in France (Kiesenwetter 1852, Osella 1970) and Spain (Meregalli 1987). One male specimen of *D. verrucosus* with the following indications was used for comparison: "Pyrénées Or. *Dichotrach. verrucosus*" from the Rätzer collection (NMBE) (Figs 2b, 3b, 4b, d, 5b).

The new synonymy is established: *D. verrucosus* (Kiesenwetter, 1852) = *Dichotrachelus valesiacus* Stierlin, 1878 syn. nov.

As shown, the unraveled *D. valesiacus* is in fact *D. verrucosus*. Since *D. verrucosus* is exclusive to the eastern and central Pyrenean Mountains, the type of *D. valesiacus* was evidently wrongly labeled. This mistake confused Stierlin (1878) when he referred it to a new species, although *D. verrucosus* was included in his revision.

The Swiss weevil fauna has lost with the present established synonymy the only species named after the most popular region for zoologists, the Valais.

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